Klamath and Lost River TMDL Public Meeting Notes
February/March 2004

Notes from the Klamath/Lost TMDL public meetings held in Yreka, CA, Klamath Falls, OR, and Fortuna, CA on February 25, February 26, and March 2, 2004, respectively, are summarized below.

February 25, 2004 at the Best Western Miner's Inn Conference Center in **Yreka, CA**. Presented by NCRWQCB and ODEQ.

Q: How will the results of the Shasta River TMDL be incorporated in the Shasta River TMDL?

Response: The Shasta River TMDL allocation will serve as an input to the Klamath River model being developed in support of the Klamath River TMDLs.

Q: Will the Klamath River TMDLs have technical advisory groups as you have for the Shasta and Scott?

Response: Given the size of the Klamath basin, with complex technical issues and many different interested parties, we do not think that advisory committees are feasible. We are conducting this and other public meetings throughout the process to get people involved, as well as holding meeting with focus groups.

Q: How will temperature data from Scott River tributaries be incorporated in the TMDLs?

Response: This information will be utilized in developing the Scott River temperature TMDL, which we are in the process of developing. The Scott River TMDL will serve as an input to the Klamath River model.

February 26, 2004 at the Klamath County Courthouse in **Klamath Falls, OR**. Presented by ODEQ and NCRWQCB.

Q: Merrill resident indicated a loss of wildlife and fish since 1990, and a lack of Agency response. She had frogs and turtles in the Lost River from 90-97, but since 97 they have disappeared. She also stated that there were dead animals, excessive foam and frequently no water since 97. She stated that Tulelake Irrigation District (TID) was only interested in irrigation of crops and that they were the problem.

Why do we aim at a maximum daily load? The maximum is too much. How are we going to clean up anything using the maximum? Why don't we concentrate on minimum levels?

Response: There is always a margin of safety included in the TMDL development. The standard can be set at or below the calculated loads if needed. Also Oregon has an anti-degradation policy for its waters.

Q: Do all streams in OR have the same bar (water quality standards)?

Response: No, the water quality standards are stream-specific or site-specific to protect beneficial uses. Cool water habitat is a beneficial use for the Lost River. The state develop the standards under consultation with wildlife agencies, then send them to EPA for approval.

Q: What role does the consultant TetraTech have, and when will it end?

Response: They will prepare the Water Quality modeling tools, and the states will prepare the TMDL documents.

Q: Can you characterize and comment on how the natural background affects non-point and point discharges?

Response: The natural background from Upper Klamath Lake has the largest affects on water quality on the Klamath River and the Lost River via the A Canal. Point source controls may not achieve water quality goals. Natural background loads must be quantified in the TMDL.

Q: Considering the Upper Klamath Lake TMDL, how do you plan on being more accurate on setting the natural background on the Klamath River and the Lost River?

Response: States will do accurate science and receive technical review.
Q: What is the peer review process?

Response: Employ review by agencies, as well as academic review and consultants.

Comment: Animals in the Lost River disappeared in 2001 because of no water.

Q: Is CA being as advanced as OR in the TMDL development process?

Response: Yes, TMDLs are being developed all over CA. CA is currently developing TMDLs for the Scott, Shasta and Salmon watersheds. The Trinity sediment TMDL has already been developed.

Q: How do you clean up Upper Klamath Lake, which has been polluted for 160 years? The Clean Water Act is not enough to fix the problems given upstream contributions. Will the TMDL quantify natural background loads?

Response: The TMDL must account for and quantify all contributing sources, including natural background sources going into Upper Klamath Lake and upstream sources. The upper boundary for the Klamath River TMDLs will be Upper Klamath Lake.

Q: What happened to local input to the Klamath River TMDL? You have a top down instead of a bottom up approach. There is not enough local involvement. What are you going to do?

Response: This is a large basin with complex technical issues and many different interested parties. We are conducting this and other public meetings throughout the process to get people involved. We don't think that advisory committees are feasible given the size of the basin and complexity of the issues. Further, advisory committees don't always spread the information to all the people. We want local input. Are there any suggestions?

Q: How many different water quality parameters in a TMDL?

Response: In OR the Klamath River is listed for temperature, nutrients, and dissolved oxygen. In OR the Lost River is listed for temperature, nutrients, dissolved oxygen, pH, ammonia, and bacteria.
In CA the Klamath River is listed for temperature, nutrients, and dissolved oxygen. In CA the Lost Rover is listed for temperature and nutrients. Tule Lake & Lower Klamath Lake Wildlife Refuge are listed for temperature, nutrients, and pH. The Shasta River is listed for temperature and dissolved oxygen. The Scott River is listed for temperature and sediment. The Salmon River is listed for temperature and nutrients.

Q: Are the established Upper Klamath Lake TMDL allocations obtainable?

Response: We will use an adaptive management approach. If there are new studies with supporting data that lead to new conclusions, we are required to adapt the TMDL. We will use an iterative process for determining load allocations.

Q: In 2005 the Klamath River TMDL will be completed, but we won't know if the Upper Klamath Lake TMDL numbers are attainable. What do you do?

Response: We will use current science, adaptive management and an iterative process to determine loads. Implementation involves monitoring of effectiveness, which is a feed back loop.

Q: Are the point sources cleaner than the River? Will you raise discharge requirements on the City treatment plant?
Q: With the high natural background in Upper Klamath Lake, what are the economic benefits of implementing a TMDL if they don't improve water quality to any degree?

Response: There is no economic component to a TMDL. If the Natural background exceeds the criteria, then it is hard to meet goals. Establishing TMDLs doesn't incorporate economics. There is an appeal process and there is a process for revising standards.
There are economic factors considered when developing site-specific objectives. Wetland enhancement and other pollution trading programs can be used to offset pollutants.

Q: Are the State water quality standards for the Lost River appropriate? They are not realistic because of hot water springs and irrigation return flows. Is there any room for loading? Can you give an example of implementation of standards when the background is exceeded?

Response: Yes, but we need to model to determine how to reduce human causes and contributions from agriculture.
In OR if you are SB1010 compliant, then you meet TMDL requirements.

Q: How do you cover non-agricultural non-point source inputs?

Response: There are existing programs that address nonpoint sources, in addition to agriculture. The TMDL analysis sheds light on the types and contributions from all sources. The science of water quality management has expanded considerably over the past 10 years to address various nonpoint sources.

Q: Is the Klamath Straits Drain a point or non-point source?

Response: It will be treated as a non-point source at this time.

Q: If OR's SB1010 plans are met agriculture has satisfied the requirements, why don't you go after other non-point sources?

Response: We will. Programs are out there (federal) for septic improvements for instance. Roads and forests also have programs. Non-point sources are now being brought to the table.

Q: What are the economics for the City (Klamath Falls) to divert waste water out of the River? It may be too costly for the City of Klamath Falls to treat wastewater discharge to meet TMDL standards. South Suburban is working with engineering consultants to determine if water can reach certain thresholds for land application. This is South Suburban's water to use/apply where appropriate.

Response by EPA staff: EPA has a process for looking at rivers that are dominated by effluent flows. There are ways of getting at that. Depending upon the TMDL results, South Suburban may land apply wastewater and stop discharge.

Q: How do you address the sediment loading in Upper Klamath Lake? If they dredge Upper Klamath Lake will it improve things?

Response: No, it won't help enough, previous studies have indicated only a minimum impact by this action, and then what do you do with the dredge spoils?

Q: If background of Upper Klamath Lake phosphorus exceeds the loading capacity (as Dr. Lewis of the NRC Report has stated), and the natural background exceeds the point sources, how do you integrate this into the Klamath River TMDL?

Response: The existing water quality standards will be used to run the modeling for the Klamath River TMDL. Modeling is needed to determine Upper Klamath Lake impacts and contributions to the Klamath and Lost Rivers. However, there is a lack of agreement on this issue. ODEQ used the best available science to complete the UKL TMDL. We can't change the requirements without new data and new science. We can't change the TMDL just because of someone's opinion. In 1998 ODEQ was required by EPA to complete the UKL TMDL first after EPA reviewed ODEQ's approach for the Klamath River TMDL. The UKL TMDL will be the upper boundary condition for the Klamath River TMDL. Hopefully, the water quality standards in Upper Klamath Lake will be met over time with implementation policies.

Q: Has the UCCE Kaffka report been published yet?

Response: Yes, and it is in the TetraTech database.

Q: For public participation, are you coordinating between CA and OR? Will the TMDLs be jointly presented? Will there be a chance to look at both CA and OR draft TMDLs?

Response: Yes, under the terms of our MOA, a joint approach is being used to conduct the TMDL analyses. Yes, we will share information with all stakeholders.

Q: If you are following the OR SB1010 plan; is it compliant with the TMDL?

Response: Yes, but the 1010 plan is more qualitative and not quantitative.

Q: If the 1010 Plan is revisited after the TMDL, what is ODEQ's role?

Response: ODEQ and OR Department of Agriculture will work together to address TMDLs after TMDLs are promulgated for the Lost River.

Q: If you combine the public process with the economic potential, isn't it better to use other avenues beside the TMDL? Will you receive comments? The timing of the TMDL may have adverse economic impacts.

Response: Public comments will be received at various times during the TMDL development process, and the y will be considered in the development.
Q: What is a 1010 plan?

Response: It is a separate process from a TMDL. It is a plan to regulate water coming from private agricultural practices to address TMDL implementation and is approved by OR Department of Agriculture.

Q: What role does a Use Attainability Analysis (UAA) play in a TMDL?

Response: The UAA is a process to revise a water quality standard that no longer applies. It can also revise water quality standards and develop site-specific standards. A UAA would only be done after a TMDL analysis is complete.

Q: How will the TMDL process consider hydroelectric operations on the Klamath River? What is the link between TMDL and the FERC PacifiCorp Hydroelectric project?

Response: We will use available PacifiCorp information to develop our water quality models. The models will analyze the PacificCorp's contributions and determine appropriate load allocations. Hydrofacilities can receive load allocations. Water quality will also be considered in the 401 certification.

Q: What is the timing of the HAAS appeal?

Response: It is in appeal now.

Closing announcement: There will be more public meetings in the summer to discuss preliminary model results.

March 2, 2004 at the River Lodge Conference Center in **Fortuna, CA**. Presented by NCRWQCB.

Q: How will the TMDL process coordinate with the PacifiCorp FERC relicensing process?

Response: We will use available PacifiCorp information to develop our water quality models. The models will analyze the PacificCorp's contributions and determine appropriate load allocations. Hydrofacilities can receive load allocations. Water quality will also be considered in the 401 certification.

Q: Why do we need to develop another model to look at the Klamath River?

Response: We will be building upon existing modeling efforts to address the water quality issues of the TMDL. Other models that have been developed for the Klamath River address flow, habitat, fish, but not necessarily water quality. We use models as one tool in our analysis to evaluate the effect of alternate management scenarios on water quality.

Q: Is the NCRWQCB monitoring in support of the TMDL.

Response: Yes. We had an extensive monitoring program in '02 and '03, and based on input from Tetra Tech we will conduct additional monitoring in '04 to address data gaps for the modeling exercise.

Q: Why doesn't ODEQ have a nutrient standard?

Response: They have standards for parameters that serve as surrogates to nutrients, such as DO, pH, and chlorophyll a.

Q: Does the Klamath River have a Nitrogen or Phosphorus problem?

Response: The TMDL analysis will shed light on this. Preliminary analysis of available data indicates phosphorus contributes to aquatic productivity and associated changes in DO.

Comment: The water quality of Upper Klamath Lake is terrible and gets cleaner as you move downstream.

Q: Does the Upper Klamath Lake TMDL include wetland restoration.

Response: Yes.

Q: How will the TMDL address water quality below Keno Dam?

Response: If the analysis determines it appropriate, Keno Dam will receive a load allocation.

Q: What will we make people do once we've identified the water quality problems?

Response: We are finding that land owners are already doing good things to protect/improve water quality in many places. Our role is to support these existing efforts and promote similar activities. We don't know exactly what actions are necessary; the TMDL analysis will determine this. It may address irrigation practices and hydrofacility operations.

Q: Will you post the compiled data and include a map showing sample locations?

Response: Yes, Tetra Tech is developing an Access database that will be posted on our web site once it is complete. The KRIS Klamath project recently completed Version 3 and is available at www.krisweb.com.

Q: Will you post minutes from this meeting?

Response: Yes, we will post them on our Klamath TMDL web page.

Q: NCRWQCB staff asked the audience for advice on advertising future public meetings.

Response: Provide public service announcements on radio.

Closing announcement: Keep eye on our web site for updates. We anticipate the next public meetings will be held in the summer to discuss preliminary model results.